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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,353	02/14/2001	Franklin Sadler Love III	41012/208363	1080
7590	03/09/2004		EXAMINER	
James M. Harrington Kennedy Covington Lobdell & Hickman, LLP Hearst Tower, 47th Floor 214 North Tryon Street Charlotte, NC 28202-2137			HONG, JOHN C	
			ART UNIT	PAPER NUMBER
			3726	
DATE MAILED: 03/09/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/783,353	LOVE ET AL.
	Examiner	Art Unit
	John C. Hong	3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 03 February 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-67 and 69-91 is/are pending in the application.
 4a) Of the above claim(s) 1-62 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 63-67 and 69-91 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

1. The request filed on 2/3/04 for a request for Continued examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/783,353 is acceptable and a RCE has been established. An action on the RCE follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 63-67 and 72-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korb et al. (U.S. Patent 4,195,450) in view of Nelson et al. (U.S. Patent 6,088,895).

Korb et al. teaches a continuous method of descaling a layer of scale on an advancing metal surface without the use of caustic materials comprising: advancing a metal surface along a predetermined path of travel; cracking the layer of scale by spraying smooth-edged media under fluid pressure at the surface of advancing metal (Fig.1 col.1, lines 9-33; col. 2 lines 14-15).

Korb et al. fail to teach the step of abrading the cracked layer of scale to remove the scale, thereby forming a descaled metal surface.

Nelson et al. teach the step of abrading the cracked layer of scale to remove the scale, thereby forming a descaled metal surface (col. 6, lines 7-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ the step of abrading the cracked layer of scale to remove the scale, thereby

forming a descaled metal surface, as taught by Nelson et al. on the method of Korb et al. so as to mechanically remove any residual scale of the surface.

Regarding claims 64-67, 85 and 86 specifically claimed roughness of the surface and advancing speed of metal surface are considered to have been obvious matters of choice, since it has been held that discovering an optimum value of result effective variable involves only routine skill in the art. *in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)*

Regarding Claims 87 and 88, specifically claimed SEM/EDS percent residual surface oxygen measurement and residual particle contents are considered to have been obvious matters of choice, since it has been held that discovering an optimum value of result effective variable involves only routine skill in the art. *in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)*.

4. Claims 69-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korb et al. /Nelson et al. as applied to claim 63 above, and further in view of Barrier et al. (U.S. Patent 6,126,516) and Applicant's admitted prior art (AAPA) .

Korb et al. /Nelson et al. teach the limitations as claimed above with the exception of the cracking step comprises spraying ceramic beads at the metal surface having a mean particle diameter within a range of .25mm to 1mm (.07mm to 0.14mm).

Barrier et al. teaches the cracking step comprises spraying ceramic beads at the metal surface (col. 1, lines 63-65) and AAPA (Specification page 12, line 22- page 13, line 7) teaches ceramic beads having a mean particle diameter within a range of .25mm to 1mm (.07mm to 0.14mm).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ the cracking step comprises spraying ceramic beads at the metal surface

having a mean particle diameter within a range of .25mm to 1mm (.07mm to 0.14mm), as taught by barrier et al. and AAPA on the method of Korb et al. /Nelson et al. so as to remove rust and clean the metal surface .

Response to Arguments

4. Applicant's arguments filed 2/3/04 have been fully considered but they are not persuasive. See the New Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Hong whose telephone number is 703-305-0779. The examiner can normally be reached on M-F(07:00-16:30)First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1784. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John C. Hong
Primary Examiner
Art Unit 3726

jh
March 7,2004